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PATENT APPLICATION

ATTORNEY DOCKET NO. __10013642 -1__

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):   George H. Forman et al

Application No.: 10/064029

Filing Date: Jan 22, 2002

Confirmation No.: 1461

Examiner: Dennis Bonshock

Group Art Unit: 2173

Title: Navigating Organizational Structures

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed ☛ _____ herewith _____ .

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) $500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month $120   ☐ 2nd Month $450   ☐ 3rd Month $1020   ☐ 4th Month $1590

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of __$ 500__ . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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Rev 10/05 (AplBrief)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	George Forman, et al.	Examiner: Dennis Bonshock
Serial No.:	10/054,029	Group Art Unit: 2173
Filed:	January 22, 2002	Docket No.: 10013642-1
Title:	Navigating Organizational Structures	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is filed in response to the Final Office Action mailed September 29, 2005.

AUTHORIZATION TO DEBIT ACCOUNT

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's deposit account no. 08-2025.

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I. REAL PARTY IN INTEREST

The real party-in-interest is the assignee, Hewlett-Packard Company, a Delaware corporation, having its principal place of business in Palo Alto, California.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences known to appellant, the appellant's legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Appeal Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 – 27 stand finally rejected. The rejection of claims 1 – 27 is appealed.

IV. STATUS OF AMENDMENTS

No amendments were made after receipt of the Final Office Action. All amendments have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element or that these are the sole sources in the specification supporting the claim features.

Claim 1

A tool for navigating an organizational structure having a plurality choices therein, including a plurality of next available choices ([0013 – 0015]), the tool comprising:

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computer code means for receiving information related to a navigation goal wherein the goal is potentially related to at least one of the choices (FIG. 1, #101: [0016 – 0017]);

computer code means for classifying said information with respect to said structure and for providing a recommendation as to at least one of said choices more likely to lead towards said goal (FIG. 1, #101 and 103: [0018 – 0019]); and

computer code means for providing feedback indicative of said recommendation (FIG. 1, #103: [0019]).

Claim 6

The tool as set forth in claim 1 comprising:
said computer code means for classifying is at least one classifier program related to a subset of choices of said plurality of choices ([0010]).

Claim 10

A computerized tool for assisting a user with navigating a large hierarchy structure, having a large plurality of nodes, via classification subprocesses ([0013 – 0015]), the tool comprising:

computer code for relating information indicative of a goal node to at least first level nodes of the hierarchy structure (FIG. 1, #101: [0016 – 0017]);

computer code for classifying said information and predicting at least one option most likely to advance navigation to a predicted goal node of said hierarchy structure;

computer code for highlighting said at least one option to said user (FIG. 1, #101 and 103: [0018 – 0019]);

computer code for receiving feedback from said user related to a current choice with respect to said at least one option (FIG. 1, #105: [0020]); and

computer code for iteratively providing suggestions including at least one refined suggestion based on reclassifying said information each a current choice among said suggestions (FIG. 1, #107, 117: [0020 – 0023]).

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Claim 11

The tool as set forth in claim 10, said code for iteratively providing suggestions further comprising:

computer code for determining if said current choice is indicative of said goal node (FIG. 1, #105: [0020]);

computer code for displaying to said user whether said current choice is said goal node (FIG. 1, #109: [0021]); and

computer code for directing said user to said goal node if said choice is correct or otherwise for iteratively providing at least one refined option choice to said user based on reclassifying said information with a said current choice until said goal node is reached (FIG. 1, #107, 117: [0020 - 0023]).

Claim 17

A process for navigating through an organizational structure having a plurality of levels and nodes ([0013 – 0015]), the method comprising:

receiving targeting data related to said organizational structure (FIG. 1, #101: [0016 – 0017]);

applying a classifier to said targeting data (FIG. 1, #101: [0018]);

presenting a plurality of choices of nodes wherein said choices are representative of results of said classifier categorizing said targeting data with respect to said organizational structure and wherein said plurality of choices includes at least a subset of said plurality of choices indicating probable solutions to said targeting data (FIG. 1, #103: [0019]);

receiving a selection from said plurality of choices (FIG. 1, #105: [0020]);

iteratively applying the classifier to said targeting data and each said selection until a user target node is reached (FIG. 1, #107, 117: [0020 – 0023]).

Claim 25

A computer readable medium having instructions for causing a computer to execute a method of determining a goal node in an organizational structure having a plurality of nodes ([0013 – 0015]), the method comprising:

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via a classifier, comparing first data indicative of a user goal node to second data indicative of given organizational structures (FIG. 1, #101: [0018]);

selecting at least one of said structures and a plurality of nodes therein (FIG. 1, #105: [0020]);

providing feedback data indicative of likely nodes related to said goal node such that at least one of said nodes is a target node predicted to be said goal node from a probabilistic analysis during said comparing, and wherein said feedback data allows selection between said likely nodes and said target node (FIG. 1, #103-117: [0020 – 0023]).

Claim 27

A computer readable medium having instructions for causing a computer to execute a method of doing business ([0013 – 0015]), the method comprising:

receiving from a remote user targeting data related to at least one organizational structure having a plurality of levels and nodes (FIG. 1, #101: [0016 – 0017]);

applying a classifier to said targeting data (FIG. 1, #101: [0018]);

presenting a plurality of choices of nodes to the remote user wherein said choices are representative of results of said classifier categorizing said targeting data with respect to said organizational structure and wherein said plurality of choices includes at least a subset of said plurality of choices indicating probable solutions to said targeting data (FIG. 1, #103: [0019]);

receiving from said remote user at least one selection from said plurality of choices (FIG. 1, #105: [0020]);

iteratively applying the classifier to said targeting data and each said selection until a user target node is selected by the remote user (FIG. 1, #107, 117: [0020 – 0023]).

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VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Claims 1-24 are rejected under 35 U.S.C. §101 because the claimed invention is allegedly directed to non-statutory subject matter.

II. Claims 1, 3-6, 8-13, 16, 17, 19, 22, 23, 25, and 27 are rejected under 35 U.S.C. §102(b) as being anticipated by USPN 5,627,980 (Schilit).

III. Claims 2 and 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schilit:

IV. Claims 7, 15, 20, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schilit and USPN 6,489,968 (Ortega).

V. Claims 14, 21, and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schilit and USPN 5,754,938 (Herz).

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VII. ARGUMENT

The rejection of claims 1 – 27 is improper, and Applicants respectfully requests withdraw of this rejection.

The claims do not stand or fall together. Instead, Applicants present separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading.

I. Claim Rejections: 35 USC § 101

Claims 1-24 are rejected under 35 U.S.C. §101 because the claimed invention is allegedly directed to non-statutory subject matter. Applicants respectfully traverse.

Overview of Law: § 101

Under 35 USC § 101, patentable subject matter must have two basic criteria. First, the subject matter must be one of processes, machines, manufacturers, and compositions of matter. Generally, three categories are not included as patentable subject matter: (1) abstract ideas, (2) laws of nature (example, mathematical algorithms/equations), and (3) natural phenomena. Second, the subject matter to be patented must be "useful." Applicants' claimed subject matter meets the criteria of 35 USC § 101.

Overview of Issues

The first issue is whether claims 1-24 are one of processes, machines, manufacturers, and compositions of matter. The second issue is whether the claimed subject matter falls within the excluded patentable subject matter of (1) abstract ideas, (2) laws of nature, and (3) natural phenomena. The third issue is whether the claims 1-24 produce a useful, concrete, and tangible result to have a practical application. Applicants address these issues below.

Issue 1: Claims within Subject Matter of § 101

Claims 1-24 are one of processes, machines, manufacturers, and compositions of matter. First, claims 1-16 are directed to computerized tools that recite numerous

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elements of computer code. The Federal Circuit has repeatedly held that computerized tools that utilize and claim computer code are patentable subject matter within 35 USC § 101. Second, claim 17 is directed to a process. The term "process" is expressly cited in § 101 as being patentable subject matter. Thus, claims 1-24 are clearly patentable subject matter of 35 USC § 101.

Issues 2 & 3: Claims Abstract or Produce Useful, Concrete, Tangible Results

The Office Action appears to argue that claims 1-24 are merely directed to abstract ideas.[1] Further, the Office Action appears to argue that claims 1-24 never produce a useful result since feedback is never visually provided to the user.[2] For several reasons, Applicants respectfully disagree.

Applicants' claims are not abstract since the claims have a practical application in the technological arts and since the claims produce a concrete, tangible, and useful result. In other words, the claims recite at least one step or one act that produces something that is concrete, tangible, and useful. Applicants provide examples for each of the independent claims 1, 10, and 17.

Claim 1 Produces Useful, Concrete, Tangible Result

As an example, claim 1 recites computer codes means that classifies information, provides a recommendation, and provides feedback. In other words, the claim recites a concrete, tangible, and useful result as classifying information, providing a recommendation, and providing feedback.

Claim 1 thus provides a "real world" value that is more than a mere idea or concept. Further, the output of claim 1 proves that the claim does not consist solely of the manipulation of an abstract idea. By contrast, the claim provides a concrete and tangible result.

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[1] Although the FOA cites case law stating that abstract ideas are not patentable, the Examiner never applies this case law to claims 1-24. Instead, the Examiner appears to argue that computer programs must be embodied in a computer readable medium.

[2] "The program is never executed nor is the feedback ever visually provided to the user." (See FOA at p. 3).

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Claim 10 Produces Useful, Concrete, Tangible Result

As an example, claim 10 recites computer codes means that classifies information, predicts and highlights an option, and provides suggestions. In other words, the claim recites a concrete, tangible, and useful result as classifying information, predicting and highlighting an option, and providing suggestions.

Claim 10 thus provides a "real world" value that is more than a mere idea or concept. Further, the output of claim 10 proves that the claim does not consist solely of the manipulation of an abstract idea. By contrast, the claim provides a concrete and tangible result.

Claim 17 Produces Useful, Concrete, Tangible Result

As an example, claim 17 recites a process that presents choices of nodes and iteratively applies a classifier until a target node is reached. In other words, the claim recites a concrete, tangible, and useful result as presenting choices of nodes and applying a classifier.

Claim 17 thus provides a "real world" value that is more than a mere idea or concept. Further, the output of claim 17 proves that the claim does not consist solely of the manipulation of an abstract idea. By contrast, the claim provides a concrete and tangible result.

Law Supports Position of Applicants

The legal position of the Applicants is clearly supported in MPEP 2106 and case law, such as *AT&T Corp. v. Excel Communications,*, 172 F.3d 1352 (Fed. Cir. 1999). For example, the MPEP clearly states: "Only when the claim is **devoid** of any limitation to a practical application in the technological arts should it be rejected under 35 USC 101" (MPEP 2106: Emphasis added). Applicants have shown that the independent claims are not devoid of any limitation to a practical application in the technological arts.

The Examiner makes several argue that are not supported in the law. First, the Examiner appears to argue that the claims are rejected because: "The computer program is not embodied in a computer readable medium" (FOA at p. 3). Independent claims 1 and 10 are directed to computerized tools that recite numerous elements of computer

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code. Applicants are not aware of any case law that states claims reciting computer code must be embodied in a computer readable medium or such claims are not patentable subject matter under 35 USC 101. In other words, the Examiner appears to be creating new law.

Second, the Examiner appears to argue that the claims are rejected because the program never provides visual feedback to the user.[3] Applicants are not aware of any case law that states claims reciting computer programs must visually provide feedback to a user. In other words, the Examiner appears to be creating new law.

Third, the Examiner appears to argue that the claims are rejected because the program is never executed (see FOA at p. 3). Applicants do not understand this rejection and can find no basis in the law for the rejection.

Burden on Examiner for Prima Facie Case

Applicants respectfully argue that the Examiner has the burden to establish that claims 1-24 do not meet the statutory requirements of 35 USC § 101. In fact, the MPEP is very clear on this burden:

> Office personnel have the burden to establish a *prima facie* case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101. Compare *Musgrave*, 431 F.2d at 893, 167 USPQ at 289; *In re Foster*, 438 F.2d 1011, 1013, 169 USPQ 99, 101 (CCPA 1971). Further, when such a rejection is made, Office personnel must expressly state how the language of the claims has been interpreted to support the rejection. (MPEP § 2106, II, A).

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[3] "The program is never executed nor is the feedback ever visually provided to the user." (See FOA at p. 3).

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Applicants respectfully submit that the Examiner has not established this *prima facie* case.

Examiner Not Following PTO Guidelines

Applicants respectfully argue that the Examiner is not following the U.S. Patent and Trademark Office's own guidelines for software cases (see, *Examination Guidelines for Computer-Related Inventions*). The Examiner has not followed these guidelines in rejecting the claims 1-24 under Section 101. In contrast to the guidelines, the Examiner cites two cases (*Rubber-Tip Pencil Co.* and *Warmerdam*), but never applies the law of these cases to the pending claims. Further, instead of applying the law to the facts, the Examiner appears to create new law by stating claims reciting computer code must be embodied in a computer readable medium and provide visual feedback to users.

II. Claim Rejections: 35 USC § 102(b)

Claims 1, 3-6, 8-13, 16, 17, 19, 22, 23, 25, and 27 are rejected under 35 U.S.C. §102(b) as being anticipated by USPN 5,627,980 (Schilit). Applicants respectfully traverse.

A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. See MPEP § 2131, also, *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). Since Schilit neither teaches nor suggests each element in the rejected claims, these claims are allowable over Schilit.

Unspecific Rejection of Claim Elements

Claims 1-27 include five different independent claims (1, 10, 17, 25, and 27). Each of these independent claims recites different and varying elements. The Examiner has not provided a location in Schilit for teaching each of these elements. Instead, the Examiner lumps all five independent claims together and cites long passages in columns 5 and 6 of Schilit for teaching all of the elements. In other words, the Examiner has never provided a location in Schilit for teaching each separate claim element for each independent claim. This type of **shotgun rejection** is difficult or impossible for the

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Applicants to rebut since the Applicants are not certain which section of Schilit corresponds to which claim element.

For at least these reasons, Applicants respectfully ask the Board or Appeals to withdraw the rejections.

Independent Claim 1

Claim 1 recites numerous recitations that are not taught or suggested in Schilit. For example, claim 1 recites "receiving information related to a navigation goal." The Office Action has not identified an element or section in Schilit that teaches or suggests this recitation. Instead, the Office Action cites a long section of Schilit (i.e., col. 5, lines 25-67). This section of Schilit teaches using a k-ary menu tree on a computer to display menu selections that are too numerous to fit on the computer screen. A user touches the screen with a pointing device to select a letter displayed on the screen. Nowhere does this section of Schilit teach or suggest receiving information related to a navigation goal.

As another example, claim 1 recites receiving information related to a navigation goal. The claim then recites that this information is classified with respect to the organization structure. In other words, claim 1 recites that information is received. Then, this information is classified. Schilit does not teach or suggest classification of information as claimed. The Office Action cites a long section of Schilit (i.e., col. 6, lines 32-65) for teaching classification of information. This section of Schilit teaches a handheld computer with a touch sensitive screen. A user touches a pointer to the screen to select names appearing on the screen. This section of Schilit does not teach receiving information related to a navigational goal and then classifying this information.

Applicants acknowledge that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "**reasonable interpretation consistent with the specification**" (see MPEP 2111: emphasis added). Applicants' specification discusses at length classifying information with types of classifiers. Schilit is not directed to classifiers and classifying information. By contrast, Schilit teaches a space efficient menu system on a graphical interface (1: 4-8). Schilit is not concerned with receiving information relating to a navigational goal and then determining how to classify this information in an organization structure. Instead, Schilit

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teaches how to organize and present data in deep or wide trees using ellipses and brackets (see 2: 6-25).

As another example, claim 1 recites "providing a recommendation as to at least one of said choices more likely to lead towards said goal." The Office Action has not identified an element or section in Schilit that teaches or suggests this recitation. Instead, the Office Action cites a long section of Schilit (i.e., col. 5, lines 52-67 and col. 6, lines 1-31). This section of Schilit teaches that a k-ary menu tree can be modified to reflect the increased likelihood that a user will select the same letter. Modifying letters in a menu tree does not teach providing a recommendation. Where is the "recommendation" in Schilit? Schilit merely modifies letters on a tree based on previous user selections. No recommendations are provided. Again, nowhere does this section of Schilit teach or suggest providing a recommendation as to at least one of choices more likely to lead towards a goal.

For at least these reasons, claim 1 is allowable over Schilit. The dependent claims are allowable for at least the reasons given in connection with claim 1.

Dependent Claim 6

Dependent claim 6 recites a classifier program. Nowhere does Schilit teach or suggest classifiers or classifier programs. The Office Action cites column 5, lines 52-67 and column 6, lines 1-31. This section of Schilit teaches that a k-ary menu tree can be modified to reflect the increased likelihood that a user will select the same letter. Modifying letters in a menu tree does not teach a classifier program as that term is known by one of ordinary skill in the art (see MPEP 2111.01: Words of a claim must be given their plain meaning given to that term by one of ordinary skill in the art.).

Applicants acknowledge that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "**reasonable interpretation consistent with the specification**" (see MPEP 2111: emphasis added). Applicants' specification discusses at length classifying information with types of classifiers. Schilit is not directed to classifiers and classifying information. By contrast, Schilit teaches a space efficient menu system on a graphical interface (1: 4-8). Schilit is not concerned with receiving information relating to a navigational goal and then

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determining how to classify this information in an organization structure. Instead, Schilit teaches how to organize and present data in deep or wide trees using ellipses and brackets (see 2: 6-25).

Independent Claim 10

Claim 10 recites numerous recitations that are not taught or suggested in Schilit. For example, claim 10 recites relating information indicative of a goal node to first level nodes. Schilit never receives information indicative of a goal node. The Office Action cites column 5, lines 25-67. This section of Schilit teaches using a k-ary menu tree on a computer to display menu selections that are too numerous to fit on the computer screen. A user touches the screen with a pointing device to select a letter displayed on the screen. When a user touches the screen, the computer program advances the menu to the letter of the touched location. Schilit never relates information indicative of a goal node to first level nodes in the hierarchy.

As another example, claim 10 recites receiving information related to a goal. The claim then recites that this information is **classified**. Schilit does not teach or suggest classification of information as claimed. The Office Action cites a long section of Schilit (i.e., col. 6, lines 32-65) for teaching classification of information. This section of Schilit teaches a handheld computer with a touch sensitive screen. A user touches a pointer to the screen to select names appearing on the screen. This section of Schilit does not teach receiving information related to a goal and then classifying this information.

Applicants acknowledge that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "**reasonable interpretation consistent with the specification**" (see MPEP 2111: emphasis added). Applicants' specification discusses at length classifying information with types of classifiers. Schilit is not directed to classifiers and classifying information. By contrast, Schilit teaches a space efficient menu system on a graphical interface (1: 4-8). Schilit is not concerned with receiving information relating to a goal and then determining how to classify this information in an organization structure. Instead, Schilit teaches how to organize and present data in deep or wide trees using ellipses and brackets (see 2: 6-25).

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As another example, claim 10 recites predicting at least one option most likely to advance navigation to a predicted goal node of said hierarchy structure. Claim 10 then recites **highlighting** this option. Nowhere does Schilit teach highlighting options most likely to advance navigation to a predicted goal. The Office Action equates using brackets in Schilit to highlighting. Applicants disagree.

According to MPEP § 2111.01, the words of a claim must be given their "plain meaning." Merriam-Webster (see www.m-w.com) is an online dictionary that defines "highlighting" as: "to throw a strong light on" or "to center attention on." Applicants' specification is consistent with this definition (see [0019]). Nowhere does Schilit teach highlighting an option most likely to advance navigation.

As another example, claim 10 recites "computer code for iteratively providing suggestions ...." The Office Action has not identified an element or section in Schilit that teaches or suggests this recitation. Instead, the Office Action cites a long section of Schilit (i.e., col. 5, lines 52-67 and col. 6, lines 1-31). This section of Schilit teaches that a k-ary menu tree can be modified to reflect the increased likelihood that a user will select the same letter. Modifying letters in a menu tree does not teach providing a suggestions. Where is the "suggestion" in Schilit? Schilit merely modifies letters on a tree based on previous user selections. No suggestions are iteratively provided. Again, nowhere does this section of Schilit teach or suggest iteratively providing a suggestion as claimed.

For at least these reasons, claim 10 is allowable over Schilit. The dependent claims are allowable for at least the reasons given in connection with claim 10.

Dependent Claim 11

First, claim 11 recites code for determining if the current choice is indicative of the goal node. Schilit cannot perform this function. In Schilit, the user touches a screen to enter selections on a menu. The program then navigates the user selections. The program in Schilit is not capable of determining whether a choice (i.e., a user selection on the menu) is the goal node. Instead, the program in Schilit navigates to user selections.

Second, claim 11 recites "computer code for directing said user to said goal node if said choice is correct or otherwise for iteratively providing at least one refined option

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choice to said user based on reclassifying said information with a said current choice until said goal node is reached." Nowhere does Schilit teach these recitations. The Office Action cites long sections in columns 5 and 6, but never specifies which elements in the claim correspond to which teachings in Schilit. It is difficult or impossible for Applicants to rebut any specific argument of the Examiner. Instead, Applicants have read these sections of Schilit and submit that these sections do not teach the alternative of directing a user to a goal node or iteratively providing a refined option choice based on reclassifying the information with a current choice until a goal is reached.

Independent Claim 17

Claim 17 recites numerous recitations that are not taught or suggested in Schilit. For example, claim 17 recites "receiving targeting data related to said organizational structure." The Office Action never addresses this element and thus never provides a location in Schilit for teaching this element. In Schilit, the user touches a screen to enter selections on a menu. The program then navigates the user selections. Nowhere does Schilit teach receiving target data related to an organization structure.

As another example, claim 17 recites "applying a classifier to said targeting data" (emphasis added) The Office Action has not identified an element or section in Schilit that teaches or suggests these recitations. Instead, the Office Action cites long sections of Schilit. Nowhere do these sections of Schilit teach or suggest receiving targeting data related to said organizational structure and then applying a classifier to said targeting data.

Schilit does not teach or suggest classification of information as claimed. The Office Action cites a long section of Schilit (i.e., col. 6, lines 32-65) for teaching classification of information. This section of Schilit teaches a handheld computer with a touch sensitive screen. A user touches a pointer to the screen to select names appearing on the screen. This section of Schilit does not teach receiving target data and applying a classifier to target data.

Applicants acknowledge that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "reasonable interpretation consistent with the specification" (see MPEP 2111: emphasis added).

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Applicants' specification discusses at length classifying information with types of classifiers. Schilit is not directed to classifiers and classifying information. By contrast, Schilit teaches a space efficient menu system on a graphical interface (1: 4-8). Schilit is not concerned with receiving information relating to target data and then determining how to classify this information. Instead, Schilit teaches how to organize and present data in deep or wide trees using ellipses and brackets (see 2: 6-25).

As another example, claim 17 recites presenting choices of nodes. The choices, however, are results of the classifier categorizing the target data related to the organization structure. Schilit does not teach classifiers. Schilit does not teach receiving target data related to the organization structure. Schilit does not teach categorizing the target data. Again, Schilit teaches that users touch a screen and the program navigates to the selected letter or location.

As another example, claim 17 recites "iteratively applying a classifier to said targeting data ...." The Office Action has not identified an element or section in Schilit that teaches or suggests this recitation. Instead, the Office Action cites a long section of Schilit (i.e., col. 5, lines 52-67 and col. 6, lines 1-31). This section of Schilit teaches that a k-ary menu tree can be modified to reflect the increased likelihood that a user will select the same letter. Modifying letters in a menu tree does not teach iteratively applying a classifier to target data that relates to an organization structure.

For at least these reasons, claim 17 is allowable over Schilit. The dependent claims are allowable for at least the reasons given in connection with claim 17.

Independent Claim 25

Claim 25 recites numerous recitations that are not taught or suggested in Schilit. For example, claim 25 recites using a classifier to compare first and second data. Schilit does not teach or suggest classification of information as claimed. The Office Action cites a long section of Schilit (i.e., col. 6, lines 32-65) for teaching classification of information. This section of Schilit teaches a handheld computer with a touch sensitive screen. A user touches a pointer to the screen to select names appearing on the screen. This section of Schilit does not teach using a classifier to compare first and second data.

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Applicants acknowledge that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a **"reasonable interpretation consistent with the specification"** (see MPEP 2111: emphasis added). Applicants' specification discusses at length classifying information with types of classifiers. Schilit is not directed to classifiers and classifying information. By contrast, Schilit teaches a space efficient menu system on a graphical interface (1: 4-8). Schilit is not concerned with using a classifier to compare first and second data. Instead, Schilit teaches how to organize and present data in deep or wide trees using ellipses and brackets (see 2: 6-25).

As another example, claim 25 recites "comparing first data indicative of a user goal node to second data indicative of given organizational structures." The Office Action never addresses this element and thus never provides a location in Schilit for teaching this element. Nowhere does this section of Schilit teach or suggest comparing first data indicative of a user goal node to second data indicative of given organizational structures.

As another example, claim 25 recites "providing feedback data indicative of likely nodes related to said goal node ...." The Office Action has not identified an element or section in Schilit that teaches or suggests this recitation. Instead, the Office Action cites long sections of Schilit. Nowhere do these sections of Schilit teach or suggest providing feedback data indicative of likely nodes related to a goal node.

For at least these reasons, claim 25 is allowable over Schilit. The dependent claims are allowable for at least the reasons given in connection with claim 25.

Independent Claim 27

Claim 27 recites numerous recitations that are not taught or suggested in Schilit. For example, claim 27 recites "receiving ... targeting data related to at least one organizational structure." The Office Action never addresses this element and thus never provides a location in Schilit for teaching this element. In Schilit, the user touches a screen to enter selections on a menu. The program then navigates the user selections. Nowhere does Schilit teach receiving target data related to an organization structure.

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As another example, claim 27 recites "applying a classifier to said targeting data" (emphasis added) The Office Action has not identified an element or section in Schilit that teaches or suggests these recitations. Instead, the Office Action cites long sections of Schilit. Nowhere do these sections of Schilit teach or suggest receiving targeting data related to said organizational structure and then applying a classifier to said targeting data.

Schilit does not teach or suggest classification of information as claimed. The Office Action cites a long section of Schilit (i.e., col. 6, lines 32-65) for teaching classification of information. This section of Schilit teaches a handheld computer with a touch sensitive screen. A user touches a pointer to the screen to select names appearing on the screen. This section of Schilit does not teach receiving target data and applying a classifier to target data.

Applicants acknowledge that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "**reasonable interpretation consistent with the specification**" (see MPEP 2111: emphasis added). Applicants' specification discusses at length classifying information with types of classifiers. Schilit is not directed to classifiers and classifying information. By contrast, Schilit teaches a space efficient menu system on a graphical interface (1: 4-8). Schilit is not concerned with receiving information relating to target data and then determining how to classify this information. Instead, Schilit teaches how to organize and present data in deep or wide trees using ellipses and brackets (see 2: 6-25).

As another example, claim 27 recites "iteratively applying a classifier to said targeting data ...." The Office Action has not identified an element or section in Schilit that teaches or suggests this recitation. Instead, the Office Action cites a long section of Schilit (i.e., col. 5, lines 52-67 and col. 6, lines 1-31). This section of Schilit teaches that a k-ary menu tree can be modified to reflect the increased likelihood that a user will select the same letter. Modifying letters in a menu tree does not teach iteratively applying a classifier to target data that relates to an organization structure.

For at least these reasons, claim 27 is allowable over Schilit.

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III. Claim Rejections: 35 USC § 103(a)

Claims 2 and 18 are rejected under 35 U.S.C. §103 as being unpatentable over Schilit. Applicants respectfully traverse.

Claim 2 depends from independent claim 1, and claim 18 depends from independent claim 17. Thus, for at least the reasons given above in Section II with regard to independent claims 1 and 17, dependent claims 2 and 18 are allowable over Schilit.

Official Notice

Per MPEP § 2144.03, Applicants challenge the factual assertion as not properly officially noticed or not properly based upon common knowledge. The Examiner has not provided adequate documentary evidence to support the position that the recitations of claims 2 and 18 are considered common knowledge or well-known in the art.

No Suggestion or Motivation to Modify Schilit

Further, Applicant argues that no teaching or suggestion exists to modify Schilit to arrive at the limitations of claims 2 and 18. Schilit teaches a space efficient menu system on a graphical interface (1: 4-8). Schilit is not concerned with classifying information as this term is known in the art.

The Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Such teaching or suggestion does not exist since Applicants' claims and Schilit are directed to different inventions. Further, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). In light of the completely different inventions and problems being solved in Schilit and Applicants' claimed

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invention, no suggestion or motivation exists to modify Schilit to arrive at the recitations of claims 2 and 18.

For at least these reasons, Applicants argue that a *prima facie* case of obvious has not been established.

IV. Claim Rejections: 35 USC § 103

Claims 7, 15, 20, and 26 are rejected under 35 U.S.C. §103 as being unpatentable over Schilit in view of USPN 6,489,968 (Ortega). Applicants respectfully traverse.

Claim 7 depends from independent claim 1; claim 15 depends from independent claim 10; claim 20 depends from independent claim 17; and claim 26 depends from independent claim 25. Ortega fails to cure the deficiencies of Schilit. Thus, for at least the reasons given above in Section II with regard to independent claims 1, 10, 17, and 25, dependent claims 7, 15, 20, and 26 are allowable over Schilit in view of Ortega.

VI. Claim Rejections: 35 USC § 103

Claims 14, 21, and 24 are rejected under 35 U.S.C. §103 as being unpatentable over Schilit in view of USPN 5,754,938 (Hertz). Applicants respectfully traverse.

Claim 14 depends from independent claim 10; and claims 21 and 24 depend from independent claim 17. Hertz fails to cure the deficiencies of Schilit. Thus, for at least the reasons given above in Section II with regard to independent claims 10 and 17, dependent claims 14, 21, and 24 are allowable over Schilit in view of Hertz.
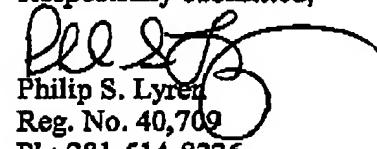
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CONCLUSION

In view of the above, Applicants respectfully request the Board of Appeals to reverse the Examiner's rejection of all pending claims.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. (281) 514-8236, Facsimile No. (281) 514-8332. In addition, all correspondence should continue to be directed to the following address:

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VIII. Claims Appendix

1. A tool for navigating an organizational structure having a plurality choices therein, including a plurality of next available choices, the tool comprising:

computer code means for receiving information related to a navigation goal wherein the goal is potentially related to at least one of the choices;

computer code means for classifying said information with respect to said structure and for providing a recommendation as to at least one of said choices more likely to lead towards said goal; and

computer code means for providing feedback indicative of said recommendation.

2. The tool as set forth in claim 1 further comprising:

computer code means for accessing at least one organizational structure of a plurality of available organization structures associated with said navigation goal.

3. The tool as set forth in claim 1 wherein the structure is a hierarchy.

4. The tool as set forth in claim 3 wherein said navigating is implemented as a search descending level-by-level through levels of the hierarchy.

5. The tool as set forth in claim 1 wherein said feedback is iterative, refining currently available choices in each iteration.

6. The tool as set forth in claim 1 comprising:

said computer code means for classifying is at least one classifier program related to a subset of choices of said plurality of choices.

7. The tool as set forth in claim 1, the computer code means for providing feedback indicative of said recommendation further comprising:

computer code means for recommending likely choices of said plurality of choices that are not said next available choices and for providing feedback indicative of

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likelihood of at least one suitable one of said likely choices as said goal.

8. The tool as set forth in claim 1 comprising:

computer code means for storing historical usage data, for learning from said historical usage data, and for improving said computer code means for classifying from said learning.

9. The tool as set forth in claim 1 wherein said computer code means for providing feedback indicative of said recommendation probabilistically facilitates navigation through the structure towards said navigation goal.

10. A computerized tool for assisting a user with navigating a large hierarchy structure, having a large plurality of nodes, via classification subprocesses, the tool comprising:

computer code for relating information indicative of a goal node to at least first level nodes of the hierarchy structure;

computer code for classifying said information and predicting at least one option most likely to advance navigation to a predicted goal node of said hierarchy structure;

computer code for highlighting said at least one option to said user;

computer code for receiving feedback from said user related to a current choice with respect to said at least one option; and

computer code for iteratively providing suggestions including at least one refined suggestion based on reclassifying said information each a current choice among said suggestions.

11. The tool as set forth in claim 10, said code for iteratively providing suggestions further comprising:

computer code for determining if said current choice is indicative of said goal node;

computer code for displaying to said user whether said current choice is said goal node; and

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computer code for directing said user to said goal node if said choice is correct or otherwise for iteratively providing at least one refined option choice to said user based on reclassifying said information with a said current choice until said goal node is reached.

12. The tool as set forth in claim 10 further comprising:

computer code for analyzing said information and each said current choice and for storing data indicative of said analyzing such that later iterations of providing at least one refined option choice account for said data indicative of analyzing.

13. The tool as set forth in claim 10 wherein said computer code for highlighting is a graphical display highlighting at least one currently available choice of a plurality of currently available choices wherein said highlighting is indicative of a suggestion that said at least one currently available choice is more likely to achieve the goal node of said navigating.

14. The tool as set forth in claim 10 wherein said computer code for highlighting is a graphical display providing probability data for a plurality of currently available choices, said graphical display relating probability of each of said currently available choices toward achieving the goal node of said navigating.

15. The tool as set forth in claim 10 wherein said computer code for classifying said starter data set and predicting at least one option most likely to advance navigation to a probabilistically correct target goal node of said large plurality of nodes further comprises:

computer code for predicting at least one target goal node of said structure wherein said target goal node is a node being a sub-node one or more levels below other said currently available choices.

16. The tool as set forth in claim 10 in a computer memory device.

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17. A process for navigating through an organizational structure having a plurality of
levels and nodes, the method comprising:

    receiving targeting data related to said organizational structure;

    applying a classifier to said targeting data;

    presenting a plurality of choices of nodes wherein said choices are representative
of results of said classifier categorizing said targeting data with respect to said
organizational structure and wherein said plurality of choices includes at least a subset of
said plurality of choices indicating probable solutions to said targeting data;

    receiving a selection from said plurality of choices;

    iteratively applying the classifier to said targeting data and each said selection
until a user target node is reached.

18. The process as set forth in claim 17 comprising:

    receiving descriptions of a plurality of organizational structures, and

    determining which organizational structure of said plurality is appropriate for use
in said process by comparing said targeting data to said descriptions.

19. The process as set forth in claim 17 wherein presenting a plurality of choices of nodes
comprises:

    presenting a plurality of currently available next choices according to the next
level of the organizational structure.

20. The process as set forth in claim 17 wherein presenting a plurality of choices of nodes
comprises:

    presenting a plurality of currently available next choices according to the next
level of the organizational structure and a plurality of highly likely choices of potential
user target nodes that lie below the said next choices.

21. The process as set forth in claim 17 wherein said presenting a plurality of choices of
nodes comprises:

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presenting only said subset.

22. The process as set forth in claim 17 further comprising:

for each said iteration, analyzing said targeting data and each said current choice and storing data indicative of said analyzing such that later iterations of presenting present only said subset accounting for said data indicative of analyzing.

23. The process as set forth in claim 17 wherein said presenting a plurality of choices of nodes further comprises:

displaying a graphical display highlighting at least one currently available choice of a plurality of currently available choices wherein said highlighting is indicative of highest probability of said at least one currently available choice being most likely to achieve the user target node of the structure.

24. The process as set forth in claim 17 wherein said presenting a plurality of choices of nodes further comprises:

displaying a graphical display providing probability data for a plurality of currently available choices, said graphical display relating probability of each of said currently available choices likelihood toward achieving the user target node of said structure.

25. A computer readable medium having instructions for causing a computer to execute a method of determining a goal node in an organizational structure having a plurality of nodes, the method comprising:

via a classifier, comparing first data indicative of a user goal node to second data indicative of given organizational structures;

selecting at least one of said structures and a plurality of nodes therein;

providing feedback data indicative of likely nodes related to said goal node such that at least one of said nodes is a target node predicted to be said goal node from a probabilistic analysis during said comparing, and wherein said feedback data allows selection between said likely nodes and said target node.

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26. The method as set forth in claim 25 further comprising:

if said target node is selected, ending said comparing, and

if said target node is not selected and one of said likely nodes is selected, re-comparing said first data with said one of said likely nodes that is selected, and providing further feedback data indicating of likely subsidiary nodes to said likely node that is selected such that at least one of said likely subsidiary nodes is a target node predicted to be said goal node from a probabilistic analysis during said re-comparing, and wherein said feedback data allows selection between said likely subsidiary nodes and said target node.

27. A computer readable medium having instructions for causing a computer to execute a method of doing business, the method comprising:

receiving from a remote user targeting data related to at least one organizational structure having a plurality of levels and nodes;

applying a classifier to said targeting data;

presenting a plurality of choices of nodes to the remote user wherein said choices are representative of results of said classifier categorizing said targeting data with respect to said organizational structure and wherein said plurality of choices includes at least a subset of said plurality of choices indicating probable solutions to said targeting data;

receiving from said remote user at least one selection from said plurality of choices;

iteratively applying the classifier to said targeting data and each said selection until a user target node is selected by the remote user.

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IX. EVIDENCE APPENDIX

None.

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X. RELATED PROCEEDINGS APPENDIX

None.

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